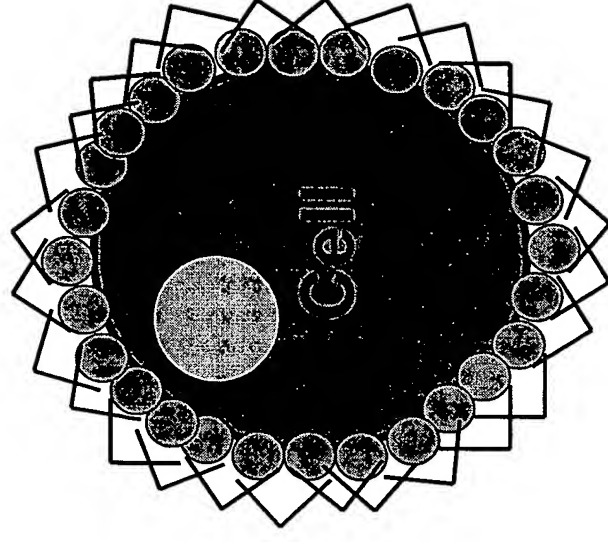
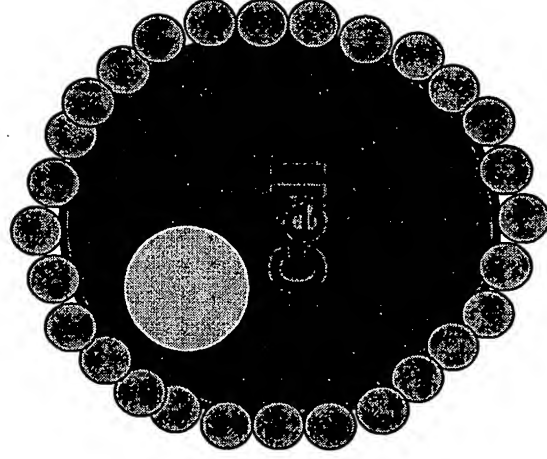


Figure 1

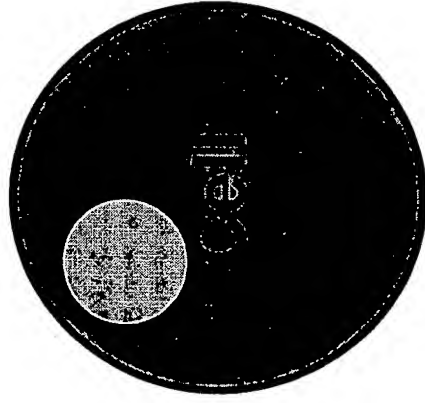
Plasma Membrane Isolation for RPMI 8226 Multiple Myeloma



Polyacrylic acid attaches itself to the exposed silica beads, thereby shielding the exposed positive charge



Positively charged silica beads attach to the surface of the plasma membrane



Cells have a slight negative charge on their exterior

Figure 2

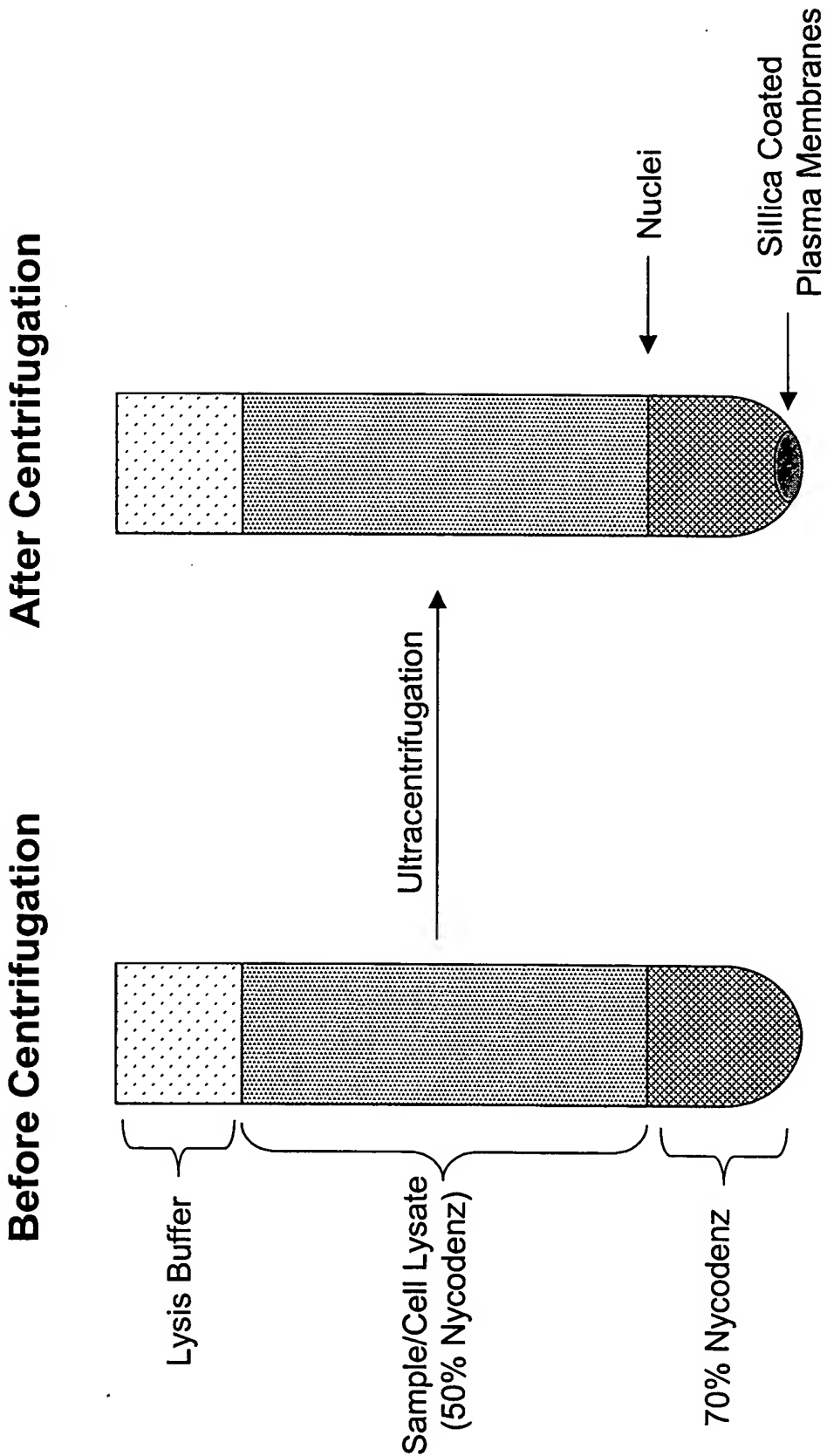


Figure 3
Plasma Membrane Isolation from MCF7 Breast Cancer Cells

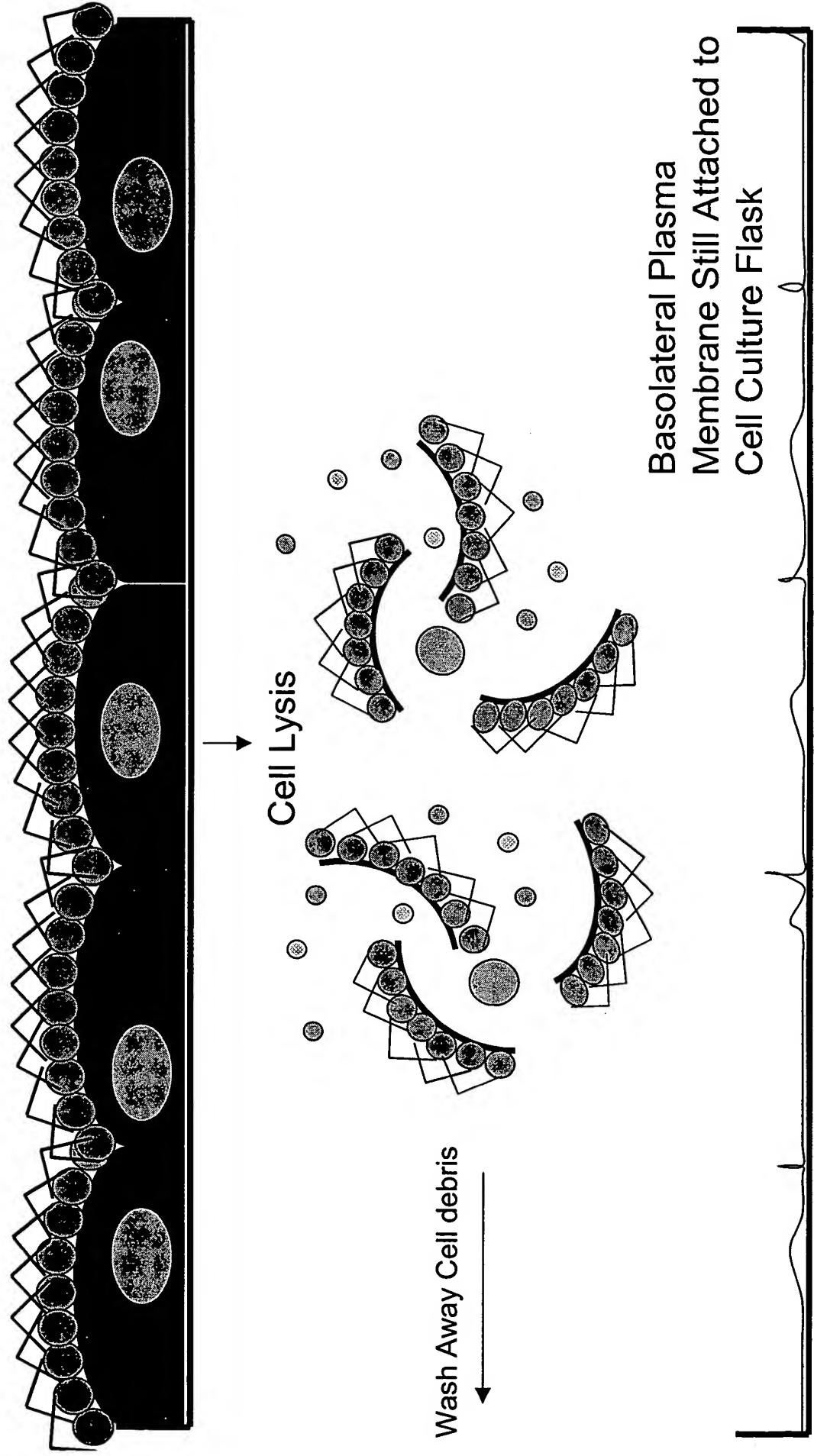


Figure 4

Experimental Scheme

1D SDS-PAGE

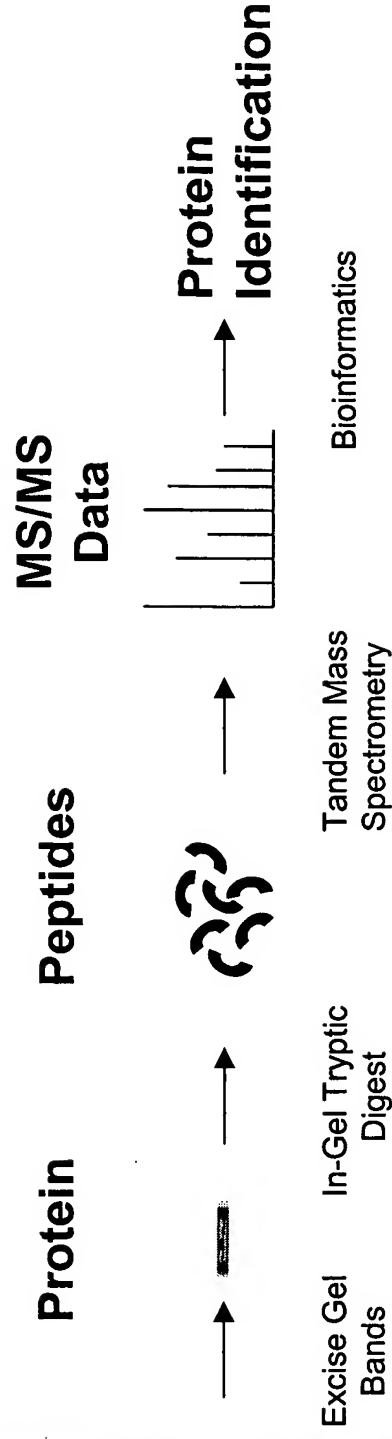
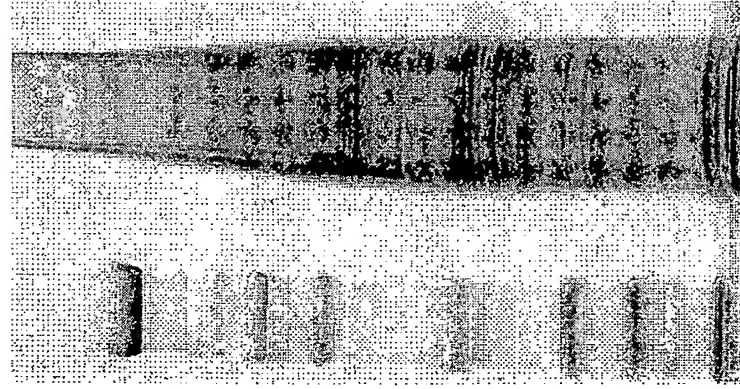
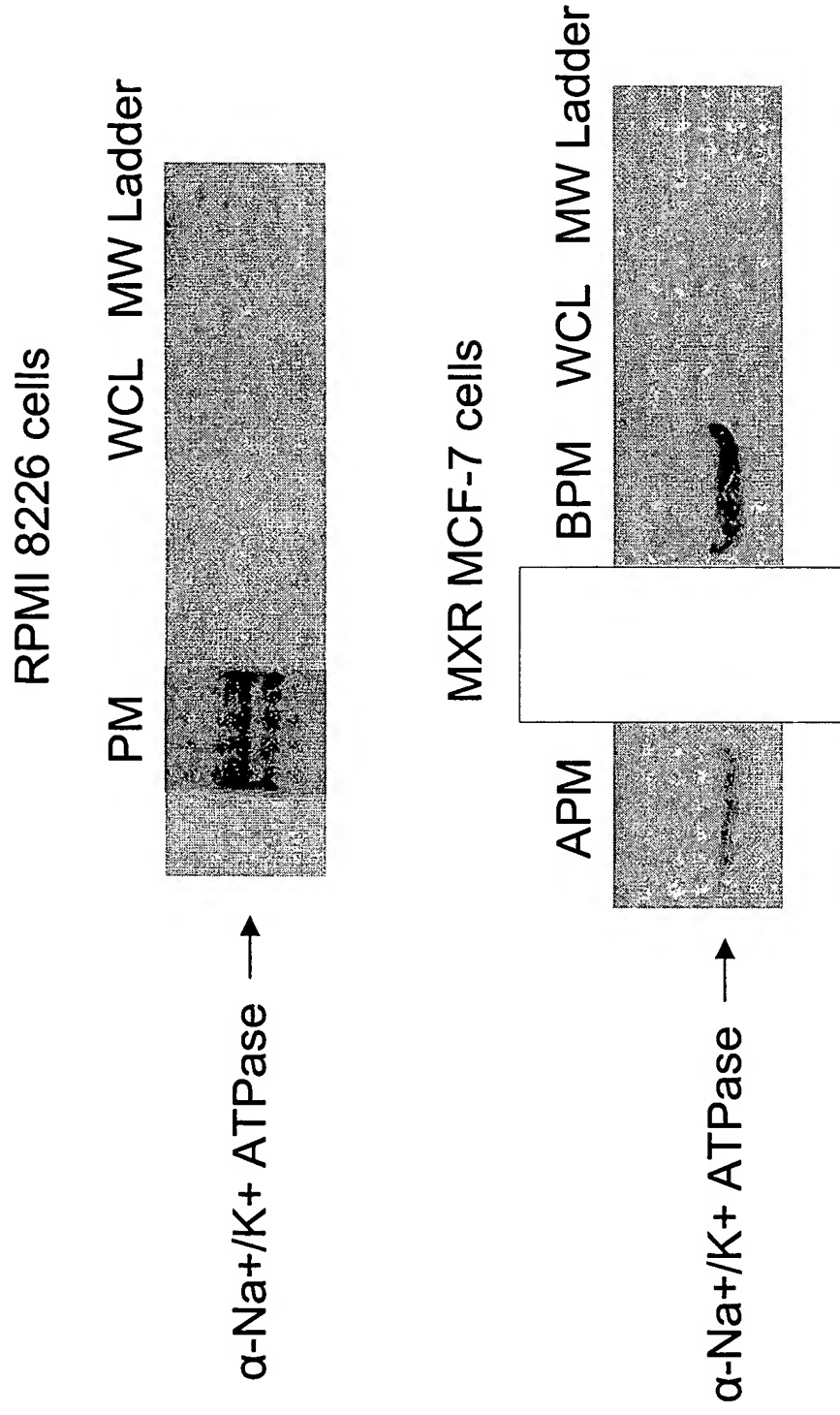


Figure 5

Western Blot for Determination of Plasma Membrane Enrichment



PM – Plasma Membrane; WCL – Whole Cell Lysate; APM – Apical Plasma Membrane; BPM – Basolateral Plasma Membrane

Figure 6

Plasma Membrane Enrichment

Cell Line	Relative Enrichment
RPMI 8226 Plasma Membrane	18 fold
MXR MCF-7 Apical Plasma Membrane	8 fold
MXR MCF-7 Basolateral Plasma Membrane	20 fold

Figure 7

Plasma Membrane Proteins Identified from RPMI 8226 Cells

	MW
Sodium/potassium-transporting ATPase alpha-1 chain precursor	114135
4F2 cell-surface antigen heavy chain	58023
Neutral amino acid transporter B(0)	57018
Neutral amino acid transporter A (SATT)	56087
Large neutral amino acids transporter small subunit 1	55659
Equilibrative nucleoside transporter 1	50626
P-selectin glycoprotein ligand 1 precursor	43346
HLA class I histocompatibility antigen, A-68 alpha chain precursor	41168
Guanine nucleotide-binding protein G(i), (Adenylate cyclase-inhibiting G alpha protein)	40864
HLA class I histocompatibility antigen, BW-72(BW-70) B*1503 alpha chain	40647
HLA class I histocompatibility antigen, B-35 B*3505 alpha chain precursor	40634
Syndecan-1 precursor	32571
Sodium/potassium-transporting ATPase beta-3 chain	31834
Erythrocyte band 7 integral membrane protein (Stomatin)	31751
HLA class II histocompatibility antigen, DR-7 beta chain precursor	30145
Basigin precursor	29431
HLA class II histocompatibility antigen, DR alpha chain precursor	28760
Ras-related protein Rab-8	23668
HLA class II histocompatibility antigen, DW2.2/DR2.2 beta chain	23178
Ras-related protein Rab-10	22755
Intestinal membrane A4 protein	16690

Figure 8
RPMI 8226 Multiple Myeloma Cells
21 Plasma Membrane Proteins Identified
48 Total Proteins Identified

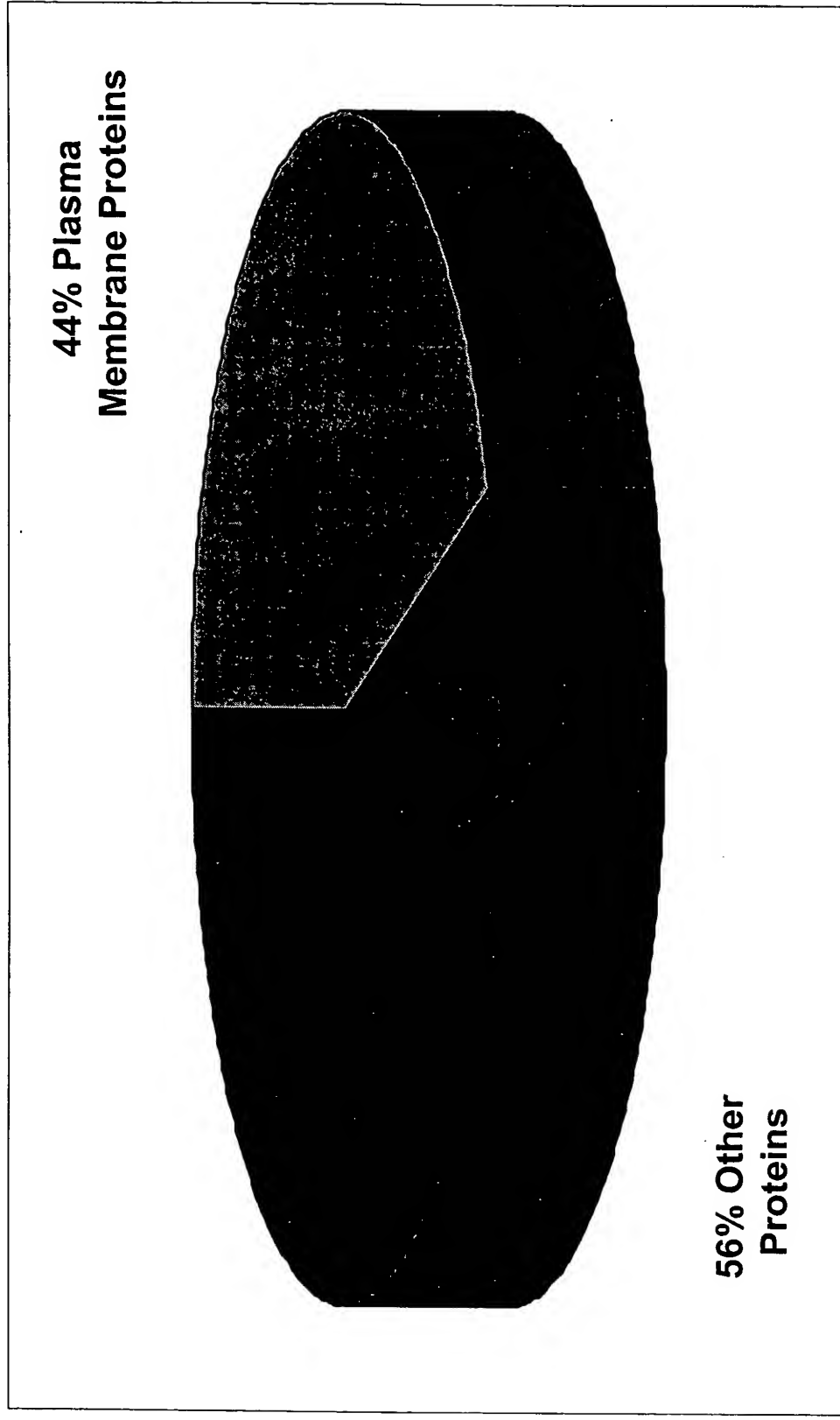
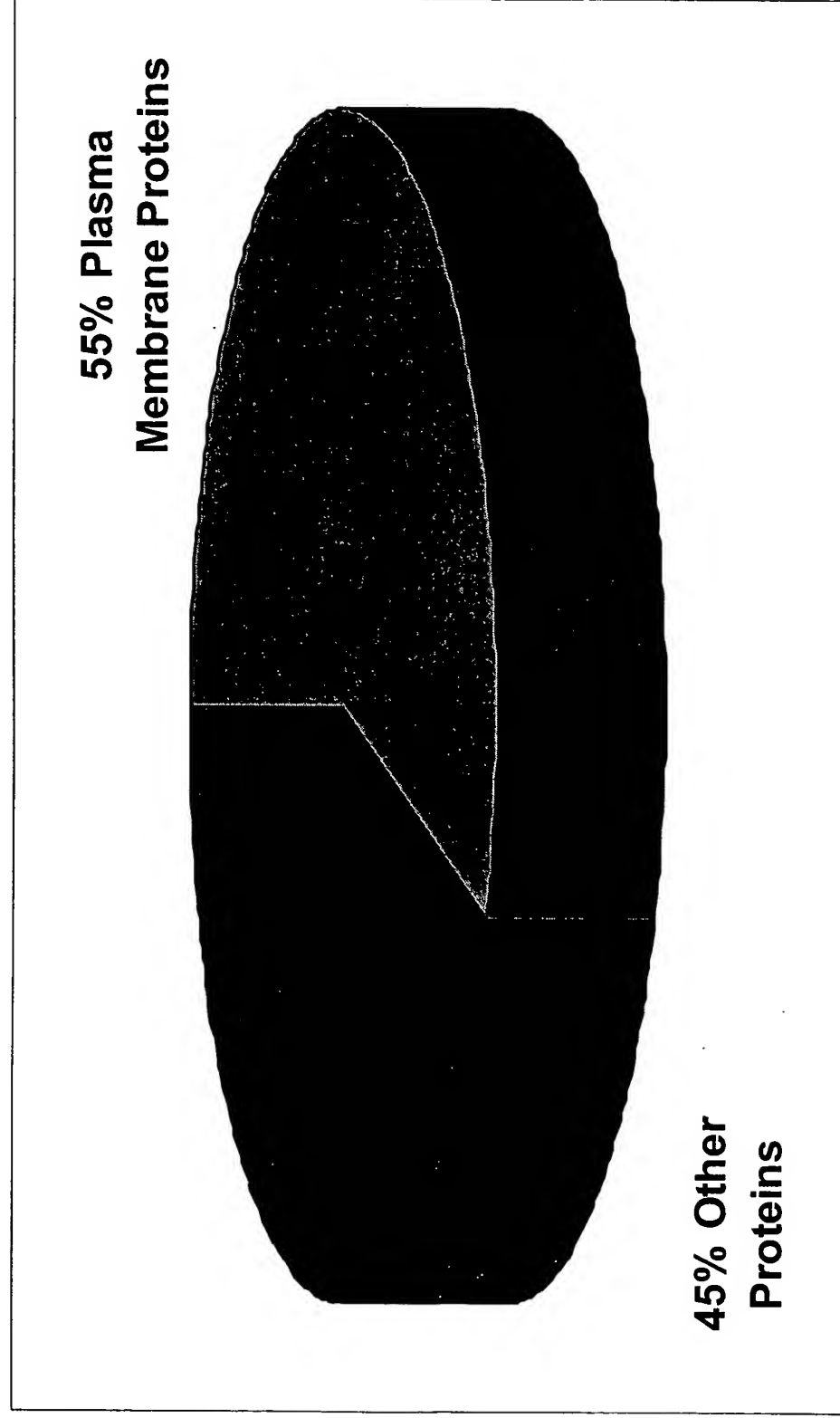


Figure 9

Basolateral Plasma Membrane Proteins Identified from MXR MCF-7 Cells		MW
(ITA2_HUMAN) Integrin alpha-2 precursor (Platelet membrane glycoprotein Ia		130469
(ITAV_HUMAN) Integrin alpha-V precursor (Vitronectin receptor alpha subunit)		117037
(A1A1_HUMAN) Sodium/potassium-transporting ATPase alpha-1 chain precursor		114135
(TFR1_HUMAN) Transferrin receptor protein 1		85304
(ABG2_HUMAN) BCRP, ATP-binding cassette, sub-family G, member 2,		72897
(4F2_HUMAN) 4F2 cell-surface antigen heavy chain		58023
(LAT1_HUMAN) Large neutral amino acids transporter small subunit 2		55660
(GBI2_HUMAN) Guanine nucleotide-binding protein G(i), alpha-2 subunit		40864
(MPCP_HUMAN) Phosphate carrier protein		40527
(GBB2_HUMAN) Guanine nucleotide-binding protein G(l)/G(s)/G(t) beta subunit 2		38048
(TTD1_HUMAN) Tumor-associated calcium signal transducer 1 precursor		35582
(POR1_HUMAN) Voltage-dependent anion-selective channel protein 1 (VDAC-1)		30737
(CD81_HUMAN) CD81 antigen (26 kDa cell surface protein TAPA-1)		26477
(CD9_HUMAN) CD9 antigen (P24)		25838
(R11B_HUMAN) Ras-related protein Rab-11B		24673
(CLD3_HUMAN) Claudin-3 (Clostridium perfringens enterotoxin receptor 2)		23816
(RB5C_HUMAN) Ras-related protein Rab-5C		23781
(RAB7_HUMAN) Ras-related protein Rab-6		23759
(RB35_HUMAN) Ras-related protein Rab-35		23296
(RB10_HUMAN) Ras-related protein Rab-10		22755
(RB1B_HUMAN) Ras-related protein Rab-1B		22328
(RAC3_HUMAN) Ras-related C3 botulinum toxin substrate 3		21764
(RAPB_HUMAN) Ras-related protein Rap-1b		21040

Figure 10
MCF-7 Breast Cancer Cells
23 Plasma Membrane Proteins Identified
42 Total Proteins Identified



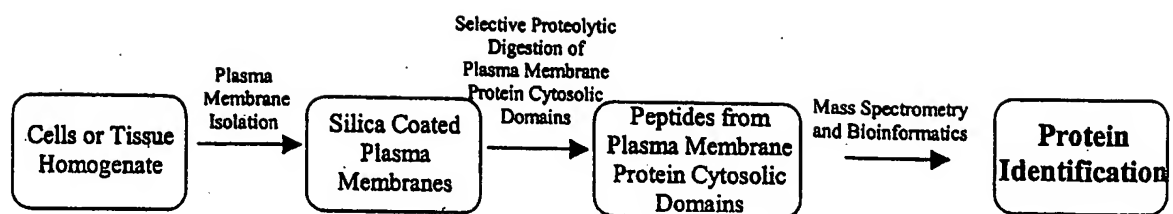


FIGURE 11